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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,491	08/29/2001	William Teague	09857-042001	6239

26161 7590 01/02/2009

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EXAMINER	
MEINECKE DIAZ, SUSANNA M	
ART UNIT	PAPER NUMBER
3692	

NOTIFICATION DATE	DELIVERY MODE
01/02/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Office Action Summary	Application No.	Applicant(s)	
	09/941,491	TEAGUE ET AL.	
	Examiner	Art Unit	
	Susanna M. Diaz	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *10-14 and 25-28* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9,15-24,29 and 30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This final Office action is responsive to Applicant's amendment filed September 22, 2008.

Claims 10-14 and 25-28 (directed toward non-elected Species II) stand as withdrawn.

Claims 1-9, 15-24, 29, and 30 are presented for examination.

Response to Arguments

2. Applicant's arguments filed September 22, 2008 have been fully considered but they are not persuasive.

Applicant argues that "Ciampi discloses determining the value of the second set of assets that are traded at different hours of the day [than] that of the mutual fund. However, that is not after hours trading." (Page 11 of Applicant's response) The claim limitation in question merely recites "monitor[ing] at least a portion of the trading of said discrete securities that occur outside of a regular trading session." The claim does not specify where the "regular trading session" occurs (e.g., in which country, time zone, or exchange). Even if, as Applicant admits, Ciampi monitors how funds trade on different exchanges (in different time zones), then an after-hours trading session may be relative. If the activity of a fund on a foreign stock exchange (that occurs after a U.S. stock exchange has closed for the day) affects the value of that fund in the U.S. stock exchange (e.g., when the U.S. stock exchange opens), then the monitoring of this activity on the foreign stock exchange can occur outside the regular trading session

when the "regular trading session" is one that is closed while at least some foreign trading activity occurs.

Ciampi can calculate the value of an asset during any time of day (col. 6, lines 5-67; col. 7, lines 30-38; col. 8, line 32 though col. 11, line 33; claim 8 of Ciampi). During any time of day, at least one market is "after-hours."

Claim 15 has been amended and will be addressed in a revised art rejection below.

Regarding claims 4-9 and 20-24, Applicant broadly states that the art rejection does not address all of the claimed features; however, Applicant does not provide any evidence to support any specific assertions.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 16-24 and 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A claimed process is eligible for patent protection under 35 U.S.C. § 101 if:

> "(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. See Benson, 409 U.S. at 70 ('Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines.'); Diehr, 450 U.S. at 192 (holding that use of mathematical formula in process 'transforming or reducing an article to a different state or thing' constitutes patent-eligible subject matter); see also Flook, 437 U.S. at

> 589 n.9 ('An argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing' '); Cochrane v. Deener, 94 U.S. 780, 788 (1876) ('A process is...an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.').[7] A claimed process involving a fundamental principle that uses a particular machine or apparatus would not pre-empt uses of the principle that do not also use the specified machine or apparatus in the manner claimed. And a claimed process that transforms a particular article to a specified different state or thing by applying a fundamental principle would not pre-empt the use of the principle to transform any other article, to transform the same article but in a manner not covered by the claim, or to do anything other than transform the specified article." (*In re Bilski, 88 USPQ2d 1385, 1391 (Fed. Cir. 2008))*

Claims 16-24 and 29 are not tied to a particular machine or apparatus nor do they transform a particular article into a different state or thing; therefore, claims 16-24 and 29 are non-statutory under § 101. It is also noted that the mere recitation of a machine in the preamble with an absence of a machine in the body of a claim fails to make the claim statutory under 35 U.S.C. § 101, as seen in the Board of Patent Appeals Informative Opinion *Ex parte Langemyr et al.* (Appeal 2008-1495), http://www.uspto.gov/web/offices/dcom/bpai/its/fd081495.pdf .

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9, 15-24, 29, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the preamble, claim 1 recites "calculating a predicted opening price," yet the body of the claim recites calculating "a *predicated* opening index price." What is a "predicated" opening index price?

In claim 1, it is not clear if the instructions are computer-executable. For example, the instructions could be a list of data that instructs a human user how to operate the computer as specified.

Claim 6 recites "to calculate a predicted opening includes instructions to…" Should this phrase state "to calculate a predicted opening *price* includes instructions to…" instead?

Claim 9 recites "to calculate a predicted opening includes instructions to…" Should this phrase state "to calculate a predicted opening *price* includes instructions to…" instead?

In the preamble, claim 16 recites "calculating a predicted opening index price," yet the body of the claim recites "a *predicated* opening index price." What is a "predicated" opening index price?

In the preamble, claim 17 recites "calculating a predicted opening index price," yet the body of the claim recites "calculating the *predicated* opening index price." What is a "predicated" opening index price? There is no antecedent basis for this phrase.

In claim 30, it is not clear what the metes and bounds of "the *predicated* opening index price" are nor is there antecedent basis for this phrase.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 16-19, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Ciampi et al. (U.S. Patent No. 7,167,837).

Ciampi discloses a computer, for calculating a predicted opening index price of a security index price of a security index that includes at least two discrete securities, the computer comprising:

[Claim 1] a processor;

a memory coupled to the processor;

a computer readable medium storing a computer program product comprising instructions to cause the computer to:

monitor at least a portion of the trading of said discrete securities that occur outside of a regular trading session (col. 5, lines 1-14; col. 6, lines 5-39); and

calculate a predicated opening index price of the security index for the beginning of the next regular trading session with respect to a closing index price of said security index at the end of the previous regular trading session, wherein said index prices are indicative of a cumulative value of said discrete securities (col. 6, lines 5-67; col. 7, lines 30-38; col. 8, line 32 though col. 11, line 33; claim 8 of Ciampi);

[Claim 2] further comprising instructions to define said security index including at least two discrete securities (abstract; col. 1, line 57 through col. 2; col. 3, lines 58-67; col. 4, lines 4-6, 32-34, 39-41; col. 7: table 1; col. 11, lines 19-33);

[Claim 3] wherein said instructions to monitor trading are configured to monitor at least a trade price of each monitored trade of said discrete securities (abstract; col. 1, line 57 through col. 2, line 6; col. 3, lines 58-67; col. 4, lines 4-6, 32-34, 39-41; col. 7: table 1; col. 11, lines 19-33).

[Claim 16] Claim 16 recites limitations already addressed by the rejection of claims 1 and 2 above; therefore, the same rejection applies.

[Claims 17-19] Claims 17-19 recite limitations already addressed by the rejection of claims 1-3 above; therefore, the same rejection applies.

[Claim 30] Claim 30 recites limitations already addressed by the rejection of claim 1 above; therefore, the same rejection applies.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 4-9 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciampi et al. (U.S. Patent No. 7,167,837), as applied to claims 1, 3, 17, and 19 above, in view of the Securities and Exchange Commission's release no. 34-41112, file no. SR-CBOE-99-05, entitled "Self-Regulatory Organizations; Order Granting Accelerated Approval of Proposed Rule Change and Notice of Filing and Order Granting Accelerated Approval of Amendment No. 1 to Proposed Rule Change by the Chicago Board Options Exchange, Incorporated Relating to Listing of Options on the Dow Jones E*Commerce Index" (herein referred to as E*Commerce Index).

[Claims 4-9] Ciampi does not explicitly disclose that said security index is a market capitalization weighted index and the cumulative value of the discreet securities is a market capitalization; however, Ciampi performs its analyses on indexes such as the S&P 500 and the NASDAQ 100 (col. 6, lines 27-31), both of which are known to be capitalization-weighted indexes. Furthermore, E*Commerce Index discusses how market capitalization weighted indexes are known and may be determined as follows:

> The E*Commerce Index is calculated on a “modified capitalization-weighted” method. This method is a hybrid between equal weighting (which may pose liquidity concerns for smaller-cap stocks) and weighting (which may result in two of three stocks

> dominating the index's performance). Under this method, the maximum weight for any stock in the Index will be set to 10%, or "capped," on the quarterly rebalancing date. The weight of all the remaining stocks shall be market capitalization weighted. Thus, the weights of these remaining stocks are not "capped." For stocks which are not "capped," index shares will equal "the company's outstanding common shares. For stocks that are "capped," index shares will equal their maximum weight, multiplied by the adjusted total market capitalization of the Index, divided by the stock's closing price on the rebalancing data. The index's adjusted total market capitalization is the total outstanding market capitalization adjusted to reflect the combined weight of all of the "capped" stocks." (E*Commerce Index: ¶ 14)

The E*Commerce Index comprises stocks traded through the facilities of NASDAQ (E*Commerce Index: ¶ 6). The values of the E*Commerce Index are calculated and disseminated in accordance with SEC rules (¶¶ 16-19). E*Commerce Index makes it clear how market capitalization weighted indexes, such as the ones disclosed by Ciampi, are commonly valued based on the cumulative value of the discrete securities, or market capitalization (as recited in claim 4); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to explicitly handle its market capitalization indexes such that the cumulative value of the discrete securities is a market capitalization (claim 4) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Furthermore, regarding claim 5, Ciampi does not explicitly disclose that a predicted opening price calculation process comprises calculating a closing index

market capitalization value for said security index, the closing index market capitalization value being the market capitalization value of said security index at the end of the previous regular trading session; however, as seen in ¶ 14 of E*Commerce Index (cited above), the valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to incorporate a predicted opening price calculation process that comprises calculating a closing index market capitalization value for said security index, the closing index market capitalization value being the market capitalization value of said security index at the end of the previous regular trading session (claim 5) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 6, Ciampi does not explicitly disclose that a predicted opening [price] is calculated by calculating a current index market capitalization value for said security index, with said current index market capitalization value being the current market capitalization value of said security index; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits

that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to incorporate a predicted opening [price] that is calculated by calculating a current index market capitalization value for said security index, with said current index market capitalization value being the current market capitalization value of said security index (claim 6) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

As per claim 7, Ciampi does not explicitly disclose that calculating a predicted opening includes calculating a discrete security market capitalization process for calculating a discrete market capitalization value for each said discrete securities included in said security index, with the discrete market capitalization value being the product of the total number of outstanding shares of each discrete security and the trade price that represents the last trade value of the discrete security; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date and "index shares will equal the company's outstanding common shares" and then certain index shares are multiplied by the adjusted total market capitalization of the Index ("market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company). Ciampi and E*Commerce Index both discuss the use of a closing price to assess a current or predict an opening valuation of the index (as discussed above); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of

Applicant's invention to modify Ciampi such that the step of calculating a predicted opening includes calculating a discrete security market capitalization process for calculating a discrete market capitalization value for each said discrete securities included in said security index, with the discrete market capitalization value being the product of the total number of outstanding shares of each discrete security and the trade price that represents the last trade value of the discrete security (claim 7) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 8, Ciampi does not explicitly disclose that calculating a predicted opening includes instructions to produce a sum of each of the discrete market capitalization values to determine the current index market capitalization value for the security index; however, as seen in ¶ 14 of E*Commerce Index (cited above), the current valuation of the index is based on each stock's closing price on the rebalancing date. Also, "market capitalization," by definition, is a measurement of corporate or economic size equal to the stock price times the number of shares outstanding of a public company. Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that calculating a predicted opening includes instructions to produce a sum of each of the discrete market capitalization values to determine the current index market capitalization value for the security index (claim 8) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

Regarding claim 9, Ciampi does not explicitly disclose that calculating a predicted opening [price] includes instructions to compare the closing index market capitalization value and the current index market capitalization value to calculate the predicated opening index price of the security index; however, the Ciampi-E*Commerce Index combination discussed above addresses the market capitalization process. Furthermore, Ciampi uses an index valuation to predict opening index price of a security index, such as Nasdaq 100 or S&P 500 (which are both examples of market capitalization weighted indexes) (col. 6, lines 5-67; col. 7, lines 30-38; col. 8, line 32 though col. 11, line 33; claim 8 of Ciampi); therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi such that calculating a predicted opening [price] includes instructions to compare the closing index market capitalization value and the current index market capitalization value to calculate the predicated opening index price of the security index (claim 9) in order to conform to a common valuation convention for market capitalization weighted indexes while adhering to SEC rules.

[Claims 20-24] Claims 20-24 recite limitations already addressed by the rejection of claims 1-9 and 15 above; therefore, the same rejection applies.

11. Claims 15 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ciampi et al. (U.S. Patent No. 7,167,837), as applied to claims 1 and 17 above, in view of Delta et al. (US 2002/0156717 A1).

[Claims 15, 29] Ciampi does not explicitly disclose filtering those trades, of the trades that occurred outside of a regular trading session, that were determined to be bad trades, from the trades that occur outside of a regular trading session; however, Delta detects "suspect trades" that occur during extended hours trading (abstract; ¶ 21). Therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify Ciampi to filter those trades, of the trades that occurred outside of a regular trading session, that were determined to be bad trades, from the trades that occur outside of a regular trading session in order to protect traders from making invalid or poorly priced trades during after-hour trading sessions.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Satow et al. (US 2004/0024691) – Discloses an after-hours stock trading system that detects bad trades.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susanna M. Diaz whose telephone number is (571) 272-6733. The examiner can normally be reached on Monday-Friday, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Abdi can be reached on (571) 272-6702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Susanna M. Diaz/
Primary Examiner, Art Unit 3692